## Occasional field observations of interspecific grooming in African Cercopithecidae (Mammalia: Primates)

By G. Peters and G. Nogge

Receipt of Ms. 26. 8. 1985

Polyspecific associations are fairly common in African forest primates, either in the form of mixed troops of several individuals each of two or more species in close spatial proximity, foraging and/or moving together for a variable length of time, or of solitary individuals joining groups of another species for some time. Polyspecific troops observed in West African forests included between two and six species of the following genera: Cercopithecus, Miopithecus, Cercocebus, Colobus, and only rarely and for short periods the species Mandrillus leucophaeus and Pan troglodytes (Jones and Sabater PI 1968; Gautier and Gautier-Hion 1969, 1983; Gartlan and Struhsaker 1972; Gautier-Hion 1973;



Fig. 1. An adult 3 vervet (Cercopithecus aethiops pygerythrus) grooming an adult blue monkey (C. mitis kolbi) the sex of which could not be ascertained during the observation. (Photo: G. Peters)

GAUTIER-HION and GAUTIER 1974; Ouris 1976; Galat and Galat-LUONG 1985). Between two and five species of the genera Cercopithecus, Cercocebus and Colobus were reported in polyspecific associations in East African forests, and for short times only, Pan troglodytes (ALD-RICH-BLAKE 1968; STRUHSAKER 1975, 1981; RUDRAN 1978; STRUHSAKER and LELAND 1979; WASER 1980). Polyspecific associations are uncommon in savannah primates like Erythrocebus patas, Papio anubis or Papio cynocephalus (HALL 1967; ALTMANN and 1970). Cercopithecus aethiops is known to form short-term mixed troops with Papio cynocephalus (ALTMANN and ALTMANN 1970) and with Cercopithecus mitis (BOOTH 1962; Kingdon 1974).

Generally interspecific affiliative behaviour like solicitation of grooming or grooming is rare in these mixed groups, agonistic behaviour between the different species being much more common (Gautier and Gautier-Hion 1969; Gautier-Hion and Gautier 1974; Waser 1980). All studies discussing interspecific groom-

U.S. Copyright Clearance Center Code Statement: 0044-3468/86/5101-0060 \$ 02.50/0 Z. Säugetierkunde 51 (1986) 60-62

<sup>© 1986</sup> Verlag Paul Parey, Hamburg und Berlin ISSN 0044-3468

ing in detail state that it is an asymmetrical phenomenon, with a non-random distribution of groomers and groomees among the species, sexes and age classes in the mixed troops (STRUHSAKER 1975, 1981; RUDRAN 1978; WASER 1980).

To the best of our knowledge the only published photographic record of interspecific grooming is by WASER (1980, Fig. 3, p. 65), involving a subadult & Colobus badius and a subadult & Cercocebus albigena, two forest species. This paper reports on two casual field observations of reciprocal interspecific grooming and documents the behaviour photographically, one event between individuals of Cercopithecus aethiops and C. mitis, the other involving C. aethiops, Erythrocebus patas and Colobus badius.

The former interspecific interaction was observed in the NW part of Meru National Park, Kenya, on August 1, 1984, in a troop of about 7 vervet monkeys (Cercopithecus aethiops pygerythrus) accompanied by a solitary blue monkey (C. mitis kolbi) (taxonomy according to Kingdon [1974]). An adult & vervet solicited grooming from the solitary adult blue monkey the sex of which could not be ascertained during the observation but the latter did not react to the invitation. In turn the C. aethiops started to groom the C. mitis (Fig. 1) and after about 2–3 minutes the mitis reciprocated. After moving for several meters the two individuals resumed grooming.

The second instance of interspecific grooming was seen in a gallery forest in Abuko Nature Reserve 15 miles from Banjul, The Gambia, on November 25, 1984. It involved individuals of three species: a patas monkey (Erythrocebus patas patas), a red colobus (Colobus badius temminckii) and two vervets (Cercopithecus aethiops sabaeus). According to Brewer (1983) in The Gambia vervets quite often form mixed troops with red colobus and playful interactions between juvenile patas monkeys and red colobus have been



Fig. 2. A triadic interspecific grooming between a patas monkey, Erythrocebus patas patas, (left), a vervet, Cercopithecus aethiops sabaeus, (right), and a red colobus, Colobus badius temminckii, (barely visible in the background between the other two monkeys). All individuals involved in this interaction were subadults. (Photo: G. NOGGE)

reported from Abuko Nature Reserve. The interspecific grooming was initiated by a single, free-ranging, subadult patas monkey from the animal orphanage of the reserve who approached a troop of vervets and a troop of red colobus that had come to a waterhole. The patas monkey and a subadult red colobus started to groom each other and were later approached by two subadult vervets who sat down close by. Then for some time the red colobus groomed the patas monkey who in turn groomed one of the vervets (Fig. 2).

## Acknowledgements

We thank Drs. M. GRUSCHWITZ for bringing to each other's attention that we had made similar observations, E. HEYMANN for assistance with references, and especially W. KAUMANNS for comments on the manuscript. Mrs. H. von Issendorff kindly improved our English.

## References

ALDRICH-BLAKE, F. P. G. (1968): A fertile hybrid between two Cercopithecus spp. in Budongo Forest, Uganda. Folia primatol. 9, 15-21.

ALTMANN, S. A.; ALTMANN, J. (1970): Baboon Ecology - African Field Research. Bibliotheca Primatologica. No. 12. Basel: Karger.

BOOTH, C. (1962): Some observations on the behaviour of Cercopithecus monkeys. Ann. N. Y. Acad. Sci. **102**, 477–487.

Brewer, E. (1983): Short Notes on Gambian Primates. Banjul, The Gambia: Wildlife Conservation Department. (typescript).

GALAT, G.; GALAT-LUONG, A. (1985): La communauté de primates diurnes de la forêt de Tai, Côte-d' Ivoire. Rev. Ecol. (Erre Vie) 40, 3–32. GARTLAN, J. S.; STRUHSAKER, T. T. (1972): Polyspecific associations and niche separation of rainforest anthropoids in Cameroon, West Africa. J. Zool. 168, 221-266.

GAUTIER, J.-P.; GAUTIER-HION, A. (1969): Les associations polyspécifiques chez les Cercopithecidae du Gabon. Terre Vie 23, 164-201.

(1983): Comportement vocal des mâles adultes et organisation supraspécifique dans les troupes

polyspécifiques de cercopithèques. Folia primatol. 40, 161–174.

GAUTIER-HION, A. (1973): Social and ecological features of Talapoin monkey – comparisons with sympatric cercopithecines. In: Comparative Ecology and Behaviour of Primates. Ed. by MICHAEL, R. P.; Crook, J. H., London, New York: Academic Press. pp. 147-170.

GAUTIER-HION, A.; GAUTIER, J.-P. (1974): Les associations polyspécifiques de cercopithèques du plateau de M-passa (Gabon). Folia primatol 22, 134–177.

HALL, K. R. L. (1965): Behaviour and ecology of the wild patas monkey, Erythrocebus patas, in Uganda. J. Zool. 148, 15-87.

JONES, C.; SABATER PI, J. (1968): Comparative ecology of Cercocebus albigena (Gray) and Cercocebus torquatus (Kerr) in Rio Muni, West Africa. Folia primatol. 9, 99-113.

KINGDON, J. (1974): East African Mammals - An Atlas of Evolution in Africa. Vol. I. London, New York: Academic Press.

Quris, R. (1976): Données comparatives sur la socio-écologie de huit espèces de Cercopithecidae vivant dans une même zone de forêt primitive périodiquement inondée (Nord-est du Gabon). Terre Vie 30, 193-209.

RUDRAN, R. (1978): Socioecology of the blue monkey (Cercopithecus mitis stuhlmanni) of the Kibale Forest, Uganda. Smithson. Contr. Zool. 249.

STRUHSAKER, T. T. (1975): The Red Colobus Monkey. Chicago: Chicago Univ. Press.

- (1981): Polyspecific associations among tropical rain-forest primates. Z. Tierpsychol. 57, 268–304. STRUHSAKER, T. T.; LELAND, L. (1979): Socioecology of five sympatric monkey species in the Kibale Forest, Uganda. In: Advances in the Study of Behaviour. Vol. 9. Ed. by ROSENBLATT, J. S.; HINDE, R. A.; Beers, C.; Busnel, M.-C., London, New York: Academic Press. pp. 159-228.

Waser, P. M. (1980): Polyspecific associations of *Cercocebus albigena*: geographic variation and

ecological correlates. Folia primatol. 33, 57-76.

Authors' addresses: Dr. Gustav Peters, Zoologisches Forschungsinstitut und Museum Alexander Koenig, Adenauerallee 150-164, D-5300 Bonn 1; Prof. Dr. Gunther Nogge, Zoologischer Garten Köln, Riehler Str. 173, D-5000 Köln 60